UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

January 8, 2013
DRAFT (Incorporates HQ comments)

Mr. Randel Perry
U.S. Army Corps of Engineers, Seattle District
Care of: GPT/ BNSF Custer Spur EIS Co-lead Agencies
1100 112th Avenue Northeast, Suite 400
Bellevue, Washington 98004

Dear Mr. Perry:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Army Corps of Engineers' (Corps) September 21, 2012 Notice of Intent (NOI) to prepare an EIS for the proposed Gateway Pacific Terminal Bulk Dry Goods Shipping Facility and the Custer Rail Expansion Projects. EPA's comments are provided pursuant to our authorities under the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act, the Clean Water Act, and our responsibilities as a Cooperating Agency.

These comments reflect the broad range of potential impacts that we believe warrant robust consideration in the EIS. In addition to evaluating the environmental impacts from constructing and operating the new terminal and the expansion of the existing rail spur line, we recommend that the EIS evaluate the potential impacts along the full route associated with transportation of dry bulk goods, including coal to the new terminal. It is essential that any increase in potential impacts to communities along foreseeable rail and waterway routes be fully examined, particularly impacts to air quality and human health.

We also believe there is a reasonably close causal relationship between the proposed project and end-use of exported coal such that decision-makers and the public would benefit from an evaluation of potential coal market dynamics, a lifecycle analysis of greenhouse gas emissions associated with coal to be exported, and an analysis of long-range air pollution concerns. Finally, we believe it is important that these issues be examined in the context of other proposed export facilities in the Pacific Northwest region.

The enclosed detailed comments elaborate on these and other recommendations. We appreciate the coordination you have carried out to date, and we look forward to collaborating with you as a Cooperating Agency in developing the EIS. If you have any questions, please contact me at (206) 553-1601 or by electronic mail at reichgott.christine@epa.gov.

Sincerely,

Enclosure

EPA Detailed Scoping Comments on the U.S. Army Corps of Engineers Notice of Intent to Prepare a Joint Environmental Impact Statement for the Gateway Pacific Terminals Bulk Dry Goods Shipping Facility and the Custer Rail Expansion Projects

January 8, 2013 DRAFT

EPA DETAILED SCOPING COMMENTS ON THE U.S. ARMY CORPS OF ENGINEERS NOTICE OF INTENT TO PREPARE A JOINT ENVIRONMENTAL IMPACT STATEMENT FOR THE GATEWAY PACIFIC TERMINALS BULK DRY GOODS SHIPPING FACILITY AND THE CUSTER RAIL EXPANSION PROJECTS

- Note – we will be modifying and formatting the citations and references.

Purpose and Need

The EIS should include a clear and concise statement of the underlying purpose and need for the proposed project, consistent with the implementing regulations for NEPA (see 40 CFR 1502.13). We recommend that this statement be framed broadly to ensure a robust analysis of alternatives.

Scope of the Analysis

It is important that the EIS evaluate the full suite of potential direct, indirect and cumulative impacts of the proposed action, and we believe the NOI outlines a good summary of the proposal's potential direct impacts. With regard to the potential indirect effects of the proposed action, we recommend that the EIS evaluate the impacts of activities further from the proposed terminal. In particular, we recommend that the EIS evaluate the impacts of increased rail traffic from the Powder River Basin to the proposed terminal, including the impacts of diesel emissions and fugitive coal dust during transport. Similarly, we recommend that the EIS evaluate the potential impacts of marine vessel traffic adjacent to the proposed terminal and traffic to the U.S. territorial seas boundary.

To estimate the proposed terminal's contribution to increased train and marine vessel traffic we recommend analyzing current and predicted trends. For example, to describe the proposed terminal's contribution to train traffic, we recommend using an approach similar to the one outlined in the Surface Transportation Board's *Procedures for Implementation of Environmental Laws* (49 CFR Part 1105.7). In addition, we recommend considering how the terminal would influence predicted trends in train traffic (see, e.g., Washington State Department of Transportation (WSDOT, 2009)). For marine vessel traffic, we recommend reviewing Washington State Department of Ecology's 2012, "Vessel Entries and Transits for Washington Waters."

We also recommend that the EIS consider available information about the extent to which, given existing projections, operating the proposed terminal might stimulate commodity extraction – such as coal mining - and the potential environmental effects associated with that expansion.

Range of Alternatives

According to the NOI, the EIS will address an array of alternatives for providing facilities suitable for the shipping and receiving of dry bulk goods and for handling rail traffic to the new facility; these include but are not limited to: no-action, alternative sites, alternative methods for shipping and handling bulk goods, alternative facility designs, and alternatives for the railroad spur upgrades. We look forward to working with you to develop a range of reasonable alternatives to be evaluated in the EIS

Aquatic Resources, Wetlands and Riparian Areas

The proposed activities will require a Clean Water Act Section 404 permit from the Corps. The Clean Water Act Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material

(Guidelines) require that impacts to aquatic resources be avoided, minimized, and mitigated, in that sequence.

In order to effectively coordinate the NEPA process and the Clean Water Act Section 404 permitting process, we recommend that the EIS include information that demonstrates compliance with the Guidelines. A potentially useful example in this regard is the U.S. Army Engineer District, Alaska's final EIS for the Point Thomson Project that includes a draft Clean Water Act Section 404(b)(1) Guidelines Evaluation for the project.

For unavoidable impacts, compensatory mitigation should be consistent with the *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule*. 33 CFR Parts 325 and 332 and 40 CFR Part 230. We recommend that the EIS include a discussion of all mitigation options, including on-site mitigation. For unavoidable losses to aquatic resources, compensatory mitigation should be implemented in advance of the impacts to avoid temporal habitat losses.

We also recommend that the EIS include an aquatic resources/wetlands mitigation plan, developed consistent with the requirements outlined at 40 CFR 230 Subpart J. To the extent possible, the following information from the draft mitigation plan should be included in the EIS:

- A description of the resource type and amount that will be provided, the method of compensation, and the manner in which the resource functions of the compensatory mitigation project will address the needs of the ecoregion, physiographic province, or other geographic area of interest. 40 CFR 230.94 (c)(2).
- A description of the factors considered during the compensatory mitigation project site selection process. 40 CFR 230.94 (c)(3)
- A description of ecological performance standards that will be used to assess whether the project is achieving its objectives. 40 CFR 230.95.
- A description of parameters to be monitored in order to determine if the compensatory mitigation project is on track to meet performance standards and if adaptive management is needed. 40 CFR 230.94 (c)(10).
- Descriptions of the long-term management plan; adaptive management plan; and, financial assurances. 40 CFR 230.94 (c)(11-13).

Mitigation and Monitoring

CEQ's January 14, 2011 guidance on the Appropriate Use of Mitigation and Monitoring addresses establishing, implementing, and monitoring mitigation commitments made during the NEPA process. Key concepts include:

- Ensuring that mitigation commitments are implemented;
- Monitoring the effectiveness of mitigation commitments;
- Remedying failed mitigation; and
- Involving the public in mitigation planning.

We recommend that the EIS give special attention to Section II' of the guidance - "Monitoring Mitigation Implementation" and "Monitoring the Effectiveness of Mitigation." Inclusion of

implementation monitoring information in the EIS, such as identification of responsible parties, mitigation requirements, and enforcement clauses will help to ensure that those commitments are carried through permits or other agreements.

Air Quality

To address potential air quality impacts, we recommend that the EIS address whether project construction or project-related bulk goods shipping and handling would result in:

- emission of air pollutants that:
  - cause any adverse impact on air-quality-related values in a federal Class I area or state wilderness area, or
  - create annual emissions within an attainment area greater than the basic Prevention of Significant Deterioration emission thresholds of 250 tons per year of any pollutant stipulated by the EPA;
- any new violation of any state or federal ambient air quality standards;
- interference with the maintenance or attainment of any state or federal ambient air quality standard in the analysis area;
- increases in the frequency or severity of any existing violations of any state or federal ambient air quality standard in the analysis area;
- delays in the timely attainment of any standard, interim emission reduction, or other air quality milestone promulgated by the EPA or state air quality agency; or,
- exposure of sensitive receptors to substantial pollutant concentrations.

Emissions Sources

We recommend that emissions estimates include the following types of construction and operations sources:

- Construction emissions that would result from the use of construction equipment and trips generated by construction workers and heavy haul trucks, and from earthmoving activities and paved road travel that would cause fugitive dust emissions. These construction activities would generate emissions of criteria air pollutants VOCs, NOx, CO, PM10, PM2.5, SOx, as well as Diesel Particulate Matter and Toxic Air Pollutants.

- Operation emissions that would result from operation of the marine vessels, the controlled handling of bulk goods, onsite off-road and on-road mobile equipment use, off-site trips of trains transporting bulk goods, and off-site on-road vehicles including heavy truck trips and employee commuting.

Particulate Matter (Fugitive Dust)

Our primary particulate matter concerns for this project stem from fugitive dust associated with the shipping and handling of coal. Fugitive dust may pose a human health risk due to chronic exposure in areas with vulnerable populations, such as infants and the elderly. Effects of fugitive dust to the natural environment may include visibility reduction and haze, surface water impacts, impacts to wetlands, and reduction in plant growth.

Note that the most recent Integrated Science Assessment for Particulate Matter determined that there was little scientific evidence that a threshold exists in the association between either long-term or short-term PM 2.5 and premature mortality (EPA, 2009). Any increase in PM 2.5 concentration is likely to lead to an increase in mortality, and likely morbidity. In areas that are already at or exceeding the PM 2.5 NAAQS, any increase in PM 2.5 concentrations could be considered significant.

To evaluate fugitive dust we recommend that the EIS address the following:

- Discussion of likely rates and dispersion of coal dust emissions from coal trains
- Discussion of coal dust emissions from terminal operations, including upland and near-shore facilities
- Dispersion analysis for potential fugitive coal dust
- Literature review of studies on non-occupational health impacts from coal dust with a special focus on the effects at lower concentrations and/or in combination with exposure to other pollutants – such as diesel emissions
- Applicability of OSHA and/or NIOSH exposure limits for coal dust analysis
- Nuisance impacts such as: derailment; nuisance coal dust piles; spontaneous combustion of accumulated dust and rangeland fires; costs to rural fire districts for fighting coal dust fires - which are especially difficult to fight due to their ability to smolder; and, accumulation of coal dust piles on private land.[1]

Diesel Emissions

We recommend that the EIS include a Mobile Source Air Toxics (MSAT) analysis to evaluate potential impacts from diesel emissions from train locomotives and trucks associated with the proposed project. An MSAT analysis would include, at a minimum: quantifying the construction and operational emissions for MSATs, identifying hotspots with a discussion of toxicity weighting, dispersion modeling, risk assessment, and consideration of appropriate avoidance, minimization, and/or mitigation opportunities.

We recommend that the MSAT/diesel emissions analysis give special consideration to locomotive idling sidings, railyards, emissions that occur within maintenance/non-attainment areas, potential concentrations near sensitive receptors, and impacts to visibility.

We believe the following references would be useful for conducting MSAT/diesel emissions analysis.

- The American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on the Environment's 2007 report "Analyzing, Documenting, and Communicating the Impacts of Mobile Source Air Toxic Emissions in the NEPA Process".
- Fundamental principles of risk-based assessment for air toxics and how to apply those principles available in the EPA's Air Toxics Risk Assessment Reference Library.[2] Note that a Toxicity Weighted Screening Approach is usually employed as a "first cut" screen.[3]

[1] For a recent NEPA analysis of these impacts, see, for example, section 3.15.4 'Residual Impacts' in the BLM's 2011 Final EIS for the Buckskin Mine Hay Creek II Coal Lease Application.

[2] http://www.epa.gov/ttn/fera/risk_atra_main.html

- Air toxics monitoring information on EPA's AirDATA website.[4] Interpreting whether the monitoring results show significant air toxics levels can be done using EPA's "A Preliminary Risk-Based Screening Approach for Air Toxics Monitoring Data Sets"[5]
- The California Environmental Protection Agency Air Resources Board Health Risk Assessments (HRA) and Mitigation Plans for major railyards.[6] Consider, for example, the Spokane Regional Clean Air Agency's utilization of the Stockton HRA and Mitigation Plan to screen health risks and identify mitigation for the BNSF railyard in Spokane.[7]
- The Puget Sound Clean Air Agency's "Tacoma and Seattle Area Air Toxics Evaluation"[8]
- The California Environmental Protection Agency's "Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach."[9]

Multiple public and private entities on the west coast are working together through the West Coast Collaborative[10] to reduce diesel emissions. We believe coordination with the Collaborative would be beneficial for accessing information regarding diesel emission analysis and mitigation for the Gateway Pacific Terminal Project.

Environmental Justice

Executive Order 12898 requires each Federal agency to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations, low-income populations, and Native American tribes.[11] We are particularly concerned about potential impacts from the shipping and handling of dry bulk goods to vulnerable populations near transportation corridors.

Other environmental justice concerns could result from intercontinental transport of air pollution and impacts to minority and low-income populations and subsistence resources, and the disruption of aquatic and/or terrestrial resources used for subsistence. For example, the combustion of coal and mobilization of mercury, prevailing wind patterns and chemistry in the atmosphere, can lead to the bioaccumulation of mercury in animals in the United States. This bioaccumulation is particularly significant in Arctic mammals with large fat stores which are used as subsistence resources by Alaska natives.

To address potential environmental justice concerns, we recommend reviewing CEQ's "Environmental Justice Guidance Under the National Environmental Policy Act."[12] We emphasize addressing the following:

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[3] Volume 3, Appendix B, p. B-4 at: http://epa.gov/ttn/fera/data/risk/vol_3/Appendix_B_April_2006.pdf
[4] www.epa.gov/oar/data/
[5] www.epa.gov/region04/air/airtoxic/Screening-041106-KM.pdf
[6] http://www.arb.ca.gov/railyard/hra/hra.htm
[7] http://www.spokanecleanair.org/documents/Study_Reports/BNSF%20Spokane%20Railyard%20Health%20Study.pdf
[8] http://www.pscleanair.org/news/library/reports/2010_Tacoma-Seattle_Air_Toxics_Report.pdf
[9] http://www.arb.ca.gov/ports/marinevess/documents/portstudy0406.pdf
[10] http://westcoastcollaborative.org/
[11] EO 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations. February 11, 1994.
[12] http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf

- Demographic Analysis: Gather geographic and demographic data about the area affected by the proposed action to determine whether minority populations, low-income populations, or Indian tribes[13] are present, and if so whether there may be disproportionately high and adverse human health or environmental effects on these populations.
- Establish baseline conditions: Consult relevant public health data and industry data to establish the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards, to the extent such information is reasonably available. [14]
- Characterize/describe the direct, indirect, and cumulative effects of the proposed action within this context: Recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action. These factors should include the physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community.
- Develop effective public participation strategies: As appropriate, acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation, and incorporate active outreach to affected groups. Strategies include: using notices, mailings, fact sheets, briefings, presentations, exhibits, tours, news releases, translations, newsletters, reports, community interviews, surveys, canvassing, telephone hotlines, question and answer sessions, stakeholder meetings, and on-scene information[15]
- Meaningful community representation: Seek to have complete representation of the community as a whole[16]. Recognize that community participation should occur as early as possible if it is to be meaningful. The EIS should describe what was done to inform the communities about the project and the potential impacts it will have on their communities, what input was received from the communities, and how that input was utilized in the decisions that were made regarding the project.
- Tribal representation: Seek tribal representation in the process in a manner that is consistent with the government-to-government relationship between the United States and tribal governments, the federal government's trust responsibility to federally-recognized tribes, and any treaty rights.

We also emphasize CEQ's framework for determining whether environmental effects are disproportionately high and adverse. Consider the following: [17]

- Whether environmental effects are or may be having an adverse impact on minority populations, low-income populations, or Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group

[13] Includes tribal subsistence and cultural resources/resource usage
[14] Ensure that the resolution of the data used is appropriate for the action. For example, some health disparities may not be visualized at the county level, whereas health planning area, census tract, and/or block group level data may be necessary. Analysis should include data at the highest resolution that still provides statistically significant and valid intercomparisons.
[15] Media and outreach should be conducted in a culturally-appropriate manner. Multiple media will likely be needed if diverse and/or multi-generational communities are affected
[16] Diversity of those who participate in meetings should reflect the diversity of the community, for example
[17] http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf

- Whether the disproportionate impacts occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards

With regard to mitigation, we note that measures for avoidance or minimization of impacts should be considered first. Where avoidance or minimization is not possible, appropriate mitigation measures should be proposed. Mitigation measures should be developed with input from the affected population.

We recommend that the EIS include a summary conclusion for the environmental justice analysis, sometimes referred to as an "environmental justice determination". This determination/summary should summarize identified environmental justice concerns and express whether and how impacts have been appropriately avoided, minimized or mitigated.

For more information see:

- EPA's website: Environmental Justice Considerations in the NEPA Process, which includes many assessment tools including EJ View and NEPAssist[18]
- Models and tools
    - Community-Focused Exposure and Risk Screening Tool (C-FERST) (as of January 2013 this tool is under development by EPA's Office of Research and Development, any interested party would need to check with developers before use)[19]
    - Community Cumulative Assessment Tool (under development by EPA's Office of Research and Development)[20]
    - EPA Office of Pollution Prevention and Toxics tools[21]
    - EPA's Environmental Benefits Mapping and Analysis Program (BenMAP)[22]
- Data resources
    - Geospatial Platform[23]
    - U.S. Census American Fact Finder[24]
    - *EPA Report on the Environment*[25]
    - *America's Children and the Environment Report*[26]
    - *CDC Tracking Program-funded State and Local Health and Environmental Tracking*[27]
    - *CDC Environmental Public Health Indicators*[28]
    - National Air Toxics Assessment (NATA) (OAR)[29]
    - EPA's Air Quality System[30]

[18] http://www.epa.gov/compliance/nepa/nepaej/index.html
[19] http://www.epa.gov/heasd/c-ferst/
[20] http://www.epa.gov/research/healthscience/health-ccat.htm
[21] http://www.epa.gov/oppt/exposure/
[22] http://www.epa.gov/air/benmap/
[23] http://www.geoplatform.gov
[24] http://factfinder2.census.gov/
[25] http://www.epa.gov/roe/
[26] http://www.epa.gov/ace/
[27] http://ephtracking.cdc.gov/showStateTracking.action
[28] http://ephtracking.cdc.gov/showIndicatorsData.action
[29] http://www.epa.gov/ttn/atw/natamain/

    - State or county public health and environmental databases
    - County Health Ranking and Roadmaps[31]
    - *Facility location data*
        - *CERCLIS*[32]
        - *RCRAInfo*[33]
        - *State databases for state-regulated facilities*
- *Guidance and References*
    - *EPA Risk Assessment Portal*[34]
    - *Recent state legislation on a broad range of environmental issues*[35]
    - *Recent state legislation on environmental justice*[36]
    - Cal EPA Cumulative Impacts Assessment Methodology[37]
    - CDC Health Disparities and Inequalities Report[38]

Health Impact Analysis

We recommend that a screening process be used to determine which aspects of health (including, but not limited to public, environmental, mental, social, and cultural health) could be impacted by the proposed project.[39] Depending on the results of the screening, a health impact analysis, such as a health risk assessment (HRA) or health impact assessment (HIA), may be appropriate to determine the direct, indirect and cumulative impacts to health. We recommend that screening be conducted early in the process to assure completion of health analyses during the development of the draft EIS.

When conducting a screening, we recommend using the following standards from the North American HIA Practice Standards Working Group document "Minimum Elements and Practice Standards for Health Impact Assessment - November 2010, Version 2"

Guidelines, Resources, and Examples for Health Impact Analysis

Guidelines for conducting a HIA are available from various sources. While EPA does not endorse or recommend use of any single or particular guidance on HIA, these references are provided to assist with identifying additional resources on HIA.

- World Health Organization[40]
- International Finance Corporation[41]
- U.S. Centers for Disease Control and Prevention[42]

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[30] http://www.epa.gov/ttn/airs/airsaqs/
[31] http://www.countyhealthrankings.org/
[32] http://www.epa.gov/superfund/sites/cursites/
[33] http://www.epa.gov/enviro/facts/rcrainfo/search.html
[34] http://epa.gov/risk/
[35] http://www.ncsl.org/issues-research/energyhome/energy-environment-legislation-tracking-database.aspx
[36] http://www.uchastings.edu/public-law/docs/ejreport-fourthedition1.pdf
[37] http://oehha.ca.gov/ej/cipa123110.html
[38] http://www.cdc.gov/minorityhealth/CHDIReport.html
[39] http://www.healthimpactproject.org/hia/process
[40] http://www.who.int/hia/about/guides/en/
[41] http://www.ifc.org/ifcext/sustainability.nsf/Content/PublicComment_HealthImpactAssessment
[42] http://www.cdc.gov/healthyplaces/hia.htm

- Caltrans – A Guide for Health Impact Assessment[43]
- Health Impact Project[44]
- Bhatia R. Health Impact Assessment: A Guide for Practice. Oakland, CA: Human Impact Partners, 2011.[45]

Examples

The "Los Angeles and Long Beach Maritime Port HIA Scope Working Draft",[46] prepared by Human Impact Partners for EPA R9, is a useful example of an HIA scope of work. This document provides substantive descriptions of potential health effects related to movement of goods; summaries of supporting evidence; mitigating factors; research questions; examples of analysis methods; and, examples of design and mitigation alternatives for the following pathways: air pollution; noise; water pollution; traffic and rail; displacement; economics/income; neighborhood livability; and, project related revenues for city/county and state government. Note especially, the effect pathway diagrams "1. Air Pollutant Effects" (p.26), "2. Noise Effects" (p.32), "4. Traffic and Rail Effects" (p. 41), "6. Economic Effects" (p. 52), "7. Neighborhood Livability" (p. 57).

It may be appropriate to focus efforts to identify public health mitigation on 'social determinants of health' as the BLM did in the 2008 Northeast National Petroleum Reserve-Alaska Final Integrated Activity Plan/Environmental Impact Statement.[47]

The Gateway Cities Air Quality Action Plan I-710 Corridor Project Health Impact Assessment[48] has been used as a public engagement and decision-support tool for the I-710 Corridor Project Environmental Impact Report/Environmental Impact Statement. This relatively extensive HIA provides information with the potential to support recommendations that would maximize beneficial or mitigate adverse health outcomes associated with constructing and operating the Gateway Pacific Terminal.

Children's Health and Safety

Executive Order 13045 on Children's Health and Safety directs that each Federal agency shall make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and shall ensure that its policies, programs, activities, and standards address these risks. Analysis and disclosure of these potential effects is appropriate because some physiological and behavioral traits of children render them more susceptible and vulnerable than adults to health and safety risks. Children may be more highly exposed to contaminants because they generally eat more food, drink more water, and have higher inhalation rates relative to their size. Also, children's normal activities, such as putting their hands in their mouths or playing on the ground, can result in higher exposures to contaminants as compared with adults. Children may be more vulnerable to the toxic

[43] http://www.cdph.ca.gov/pubsforms/Guidelines/Documents/HIA%20Guide%20FINAL%2010-19-10.pdf
[44] http://www.healthimpactproject.org/
[45] http://www.humanimpact.org/component/jdownloads/finish/11/139/0
[46] http://www.epa.gov/region9/nepa/PortsHIA/pdfs/DraftHIAScope4PortsOfLALB.pdf
[47] See "Appendix G: Examples of Public Health Mitigation Strategies" at http://www.blm.gov/ak/st/en/prog/planning/npra_general/ne_npra/northeast_npr-a_final.html
[48] http://gatewaycog.org/publications/1-FINAL_I710_HIA_020212.pdf

effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed.

Because children can be more exposed and vulnerable to contaminants, we recommend that the EIS document specifically address the potential direct, indirect, and cumulative impacts of the proposed project on children's health, including consideration of prenatal exposures (exposures that may be experienced by pregnant women). The analysis should characterize and address children's exposures and susceptibilities to the pollutants of concern.

Social and Economic Effects

To address social and economic effects, especially those associated with terminal related train traffic, we recommend consideration of the following examples from the Federal Railroad Administration *Procedures for Considering Environmental Impacts.*

> (15) Land use. The EIS should assess the impacts of each alternative on local land use controls and comprehensive regional planning…[49]
>
> (16) Socioeconomic environment. The EIS should assess the number and kinds of available jobs likely to be affected by the alternatives. Also discussed should be the potential for community disruption or cohesion, the possibility of demographic shifts, and impacts on local government services and revenues. The need for and availability and adequacy of relocation housing should be assessed, using as a guide section 6 of Attachment 2 to DOT Order 5610.1C. The positive and negative consequences of each alternative on commerce in the community and its surrounding metropolitan area, specifically on existing business districts and the immediate project areas should be analyzed. [50]
>
> 8. b. Other Social Impacts. "How the proposal will facilitate or inhibit their access to jobs, educational facilities, religious institutions, health and welfare services, recreational facilities, social and cultural facililties, pedestrian movement facilities, and public transit services.[51]
>
> 6. a. Results of consultation with local officials and community groups regarding the impacts to the community affected.[52]

Noise Impacts

To evaluate potential noise impacts, we recommend using the procedures outline in the Federal Transit Administration's (FTA) 2006 Noise and Vibration Manual.[53]

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[49] See 49 CFR Part 1105.7 at: http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=89a40f5d6b8964a02bc421eb0d364887&r=PART&n=49y8.1.1.2.35#49:8.1.1.2.35.0.7.
[50] See 49 CFR Part 1105.7 at: http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=89a40f5d6b8964a02bc421eb0d364887&r=PART&n=49y8.1.1.2.35#49:8.1.1.2.35.0.7.
[51] 1979 Attachment 2 DOT Order 5610.1C https://www.transportationresearch.gov/dot/fhwa/ReNepa/Lists/aReferences/Attachments/246/5610.1c.pdf
[52] *Ibid.*

With respect to determining significance, we suggest the following criteria.

- Exposure of persons to or generation of noise levels in excess of standards for a severe impact established by the FTA for transit projects.
- Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

We recommend that the EIS identify unavoidable noise impacts and potential mitigation measures.

Coordination with Tribal Governments

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments (November 6, 2000), was issued in order to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications, and to strengthen the United States government-to-government relationships with Indian tribes. The EIS should describe the process and outcome of government-to-government consultation between the Corps and tribal governments, issues that were raised, and how those issues were addressed in the selection of the proposed alternative.

Invasive Species

The establishment and spread of invasive nuisance species is a significant environmental and economic issue. The EPA recommends consideration of impacts associated with invasive nuisance species consistent with Executive Order 13112. In particular, construction activities which disturb the ground may expose areas and facilitate propagation of invasive species.. We recommend that the EIS include a project design feature that calls for the development of an invasive species management plan to monitor and control noxious weeds, and to utilize native plants for restoration of disturbed areas after construction.

Ballast water from vessels is a major source of non-native species introduction into the marine ecosystems. Non-native species can adversely impact the economy, the environment, or cause harm to human health. Impacts may include reduction of biodiversity of species inhabiting coastal waters from competition between non-native and native species for food and resources. We recommend that the EIS discuss potential impacts from non-native invasive species associated with ballast water and identify mitigation measures – which could include but is not limited to ballast-related stipulations from the EPA's Draft 2013 Vessel General Permit[54] - to minimize adverse impacts to the marine environment and human health.

Hazardous Materials/Hazardous Waste/Solid Waste

We recommend that the EIS address potential direct, indirect, and cumulative impacts of hazardous waste from construction and operation of the proposed project. The document should identify projected hazardous waste types and volumes, and expected storage, disposal, and management plans. It should identify any hazardous materials sites within the project's study area and evaluate whether those sites would impact the project in any way.

[53] http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf
[54] http://cfpub.epa.gov/npdes/vessels/vgpermit.cfm

Cumulative Impacts

Cumulative impacts result when the effects of an action are added to other effects in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis. While impacts can be differentiated by direct, indirect, and cumulative, the concept of cumulative impacts takes into account all relevant disturbances since cumulative impacts result from compounding of the effects of all actions over time. Thus the cumulative impacts of an action can be viewed as the total effects on a resource, ecosystem, or human community of that action and all other activities affecting the resource.

Resources, ecosystems and communities should also be characterized in terms of their response to change and capacity to withstand stresses. Trend data, where available, should be used to establish a baseline for the affected resources and project a reasonably foreseeable cumulative baseline for the affected resources and to predict the environmental effects of the project components when added to this baseline. For the cumulative impacts assessment, we recommend focusing on resources that are "at risk" or have the potential to be significantly impacted by the proposed project. We also recommend the EIS delineate appropriate geographic boundaries whenever appropriate, including natural ecological boundaries whenever possible, and also evaluate the time period of the project's effects. For instance, for a discussion of cumulative wetland impacts, a natural geographic boundary such as a watershed or sub-watershed could be identified for the spatial scope, although an analysis at multiple geographic scales may also be appropriate.

We recommend that the assessment of cumulative impacts include consideration of other proposed bulk good export terminals in the Pacific Northwest, including the Morrow Pacific Project in Boardman, Oregon and the Millennium Bulk Logistics project in Longview, Washington.) Increased coal supplies may also influence coal-fired power plant construction and other related long-term infrastructure.

Combustion of Exported Coal

Terminal operations would result in the combustion of Powder River Basin coal in Asia and elsewhere. Recent studies suggest, for example, that Chinese coal consumption may be sensitive to the relative price of imported and domestically produced coal (Haftendorn and Holz, 2008; Ma et al. 2008; Morse and He, 2010), and studies of world coal markets have shown that production and transportation infrastructure is a limiting constraint to arbitrage in (quality-adjusted) delivered coal prices (Haftendorn, et al. 2012.) Effects to human health and the environment in the United States and elsewhere from terminal-related coal consumption changes may occur as a result. For example, increases in exported coal consumption in Asia could lead to increased greenhouse gas emissions, and changes in the type of coal consumed could increase mercury emissions depending on the pollution generating characteristics of the coal. Similar concerns could affect ozone concentrations in the U.S., increase particulate matter, and cause visibility impairment.

We believe there is a reasonably close causal relationship between the proposed project and end-use of exported coal such that decision-makers and the public would benefit from an evaluation of potential coal market dynamics, a lifecycle analysis of GHGs associated with coal to be exported, and an analysis of long-range air pollution concerns.

Regional Climate Change Issues

There are several climate change impacts of particular concern in the Pacific Northwest.[55] Rising stream temperatures are expected reduce cold-water fisheries habitat. Changes in the timing and length of seasons would influence changes in the ranges, phenology, community composition, biotic interactions and behavior of plants and animals. Increased winter rainfall will be accompanied by a reduction in snow pack, earlier snowmelts, and increased runoff. Corrosive seawater from ocean acidification - caused primarily by oceans absorbing carbon dioxide (a greenhouse gas) - threatens shellfish, other marine calcifiers, and the broader marine environment, potentially affecting the regional economy.[56] We believe that relevant ongoing and future regional climate change projected over the proposed project lifetime should be discussed in the "Affected Environment" section of the EIS. Among other things, this will help identify project impacts that may be exacerbated by climate change.

In addition, some of the effects of climate change, such as sea level rise, may also impact the proposed project itself. We recommend that the EIS consider, for example, whether sea level rise may affect the near-shore facilities or operations over the project lifetime and, if so, explore adaptation alternatives that take likely sea level rise into account.

GHG Emissions Associated with the Terminal and Rail Expansion

We recommend that the EIS estimate the GHGs emissions associated with the construction and operation of the terminal and rail expansion. To help characterize the potential impacts of the GHGs, we recommend using the federal estimates of the "social cost of carbon" [57] In addition, the EIS should explore reasonable alternatives or other practicable means to mitigate the emissions.

[55] IPCC 2007

[56] http://www.ecy.wa.gov/water/marine/oceanacidification.html

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